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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,469

09/12/2006

Raul Bosco JR.

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EXAMINER

HAMO, PATRICK

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

08/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,469	Applicant(s) BOSCO ET AL.	
	Examiner PATRICK HAMO	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>31 July 2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "dimensioned to define an increase in the structural rigidity" in claim 1 is relative and renders the claim indefinite. It is not clear from the claim what the increase in structural rigidity is compared with, the specification does not provide a standard for ascertaining the requisite degree of increase in structural rigidity, and one

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of ordinary skill in the art would not be reasonably apprised of the scope of the invention as neither the structural rigidity of applicants' disclosed prior art nor applicants' invention is distinctly discussed.

Claim 2 recites the limitation "its extension" in regard to the reinforcing wall portion. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the extension of a respective suction orifice." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta, US 5,722,818 in view of Bar, US 4,582,468.

In regard to claim 1, Ohta discloses **a suction system for a refrigeration compressor of the type which comprises a cylinder (12); a valve plate (15) which is provided with at least one suction orifice (24, 25), selectively closed by a suction valve (31), and which closes a cylinder end; a cylinder head (16) mounted against a face of the valve plate opposite to that closing the cylinder and which defines a discharge chamber (chamber connected to orifice 26 within the cylinder head) occupying part of said cylinder head and partially contouring the suction**

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orifice, interpreted to do so as the orientation of the discharge chamber determines the position of the suction orifices); **and a suction muffler (17) comprising a hollow body having an outlet tube (18) projecting therefrom and presenting a free end (35) seated on the valve plate in coaxial alignment with a respective suction orifice, said cylinder head being provided, externally to the discharge chamber, with a reinforcing wall portion** interpreted as the lower half of element 16 **which is dimensioned to define an increase in the structural rigidity of the cylinder head** at least with respect to a cylinder head that did not substantially include the lower half of the cylinder head.

Ohta does not disclose that the free end of the outlet tube is provided with two tubular projections which are parallel to each other, each being aligned with a respective suction orifice of the valve plate.

However, Bar teaches a suction muffler 24 attached to a cylinder head 20, the **outlet tube** leading from the muffler to the cylinder head **provided with two tubular projections (52) which are parallel to each other at its free end** (see fig. 3), **each being aligned with a respective suction orifice (54) of a valve plate**. Bar teaches that the use of two aligned tubes prevents the rotation of the muffler in response to vibrations of the compressor (col. 2, lines 35-43). Therefore, it would have been obvious to a person having ordinary skill in the art to have provided two tubular projections for a more secure attachment between the muffler and the cylinder head.

In regard to claim 2, the portion interpreted as the reinforcing wall portion in Ohta is spaced from the outlet tube where it surrounds the discharge chamber.

In regard to claim 3, the reinforcing wall portion of Ohta helps maintain the tube on the valve plate.

In regard to claim 4, the outlet tube passes through a hole formed in the reinforcing wall portion.

In regard to claim 5 the reinforcing wall portion is seated against the valve plate.

In regard to claim 6, the reinforcing wall portion occupies the area of the cylinder head external to the discharge chamber.

In regard to claim 7, while the reinforcing wall portion is opened in an axially shifted position to accommodate the outlet tube, it would have been obvious to a person having ordinary skill in the art that the position of the outlet tube and the corresponding opening in the reinforcing wall portion is an obvious matter of engineering design choice depending on the dimensional and geometric constraints of the design, and therefore does not patentably distinguish over the above cited art.

In regard to claim 8, the free end of the outlet tubes of both references is fitted into the interior of a suction orifice in the valve plate.

In regard to claim 10, the cylinder head of Bar comprises a pair of openings which are parallel to each other, each receiving a respective tubular projection of the outlet tube.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 in view of Tomell et al., US 2002/0098093.

The references as applied to claim 1 above teach all of the limitations of independent claim 1 substantially as claimed, but fail to disclose a fixation element constantly forcing the cylinder head against the valve plate. However, Tomell teaches a similar suction muffler and cylinder head attachment system for reciprocating compressors including a restraining plate 82 that may be interpreted as a fixation element constantly forcing the cylinder head against the valve plate. It would have been obvious to a person having ordinary skill in the art to have modified the references as applied to claim 1 above with the restraining plate of Tomell to further secure the muffler and cylinder head to each other.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK HAMO whose telephone number is (571)272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/
Primary Examiner, Art Unit 3746

/Patrick Hamo/
Patent Examiner, AU 3746